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10/763,577	01/22/2004	Clark Robison	WEAT/0340	4891

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EXAMINER

YACOB, SISAY

ART UNIT	PAPER NUMBER
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2635

DATE MAILED: 03/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/763,577

Applicant(s)

ROBISON ET AL

Examiner

Sisay Yacob

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1 The application of Robison et al., "Control apparatus for automated downhole tools" filed on January 22, 2004 has been examined.

Claims 1- 23 are pending

Claim Rejections - 35 USC § 102

2 The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3 Claims 1-6, 8-13 and 16-23 are rejected under 35 U.S.C. 102(b) as being anticipated by US patent of Nazzal et al., (6,041,860).

4 As to claim 1, Nazzal et al., discloses a method of operating one or more downhole devices in a wellbore (Col. 2, lines 33-36, 52-60) comprising disposing the one or more devices in the wellbore (Col. 2, lines 42-45, 61-63), the one or more devices having at least an open and a closed position, and providing a signal to the one or more devices to move between the open and the closed position (Col. 11, lines 45-67, Col. 12, lines 1-2; Col. 18, lines 47-55; Col. 20, lines 29-39), the signal being

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computer generated based upon an operator's interaction with a touch screen (Col. 21, lines 20-45).

5 As to claim 2, the method of claim 1, further, Nazzal et al., discloses providing the signal to the one or more devices comprises transmitting the signal to a controller (Col. 21, lines 20-26).

6 As to claim 3, the method of claim 2, further, Nazzal et al., discloses comprising moving the one or more devices between the open and the closed position (Col. 11, lines 45-67, Col. 12, lines 1-2).

7 As to claim 4, the method of claim 1, further, Nazzal et al., discloses the one or more devices are operated using fluid pressure (Col. 3, lines 22-29).

8 As to claim 5, the method of claim 4, further, Nazzal et al., discloses the signal to the one or more devices comprises transmitting the signal to a controller (Col. 3, lines 37-45).

9 As to claim 6, the method of claim 5, further, Nazzal et al., discloses placing the one or more devices in fluid communication with a fluid source (Col. 5, lines 19-35).

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10 As to claim 8, the method of claim 1, further, Nazzal et al., discloses moving the one or more downhole devices between an open position and a closed position (Col. 11, lines 45-67, Col. 12, lines 1-2).

12 As to claim 9, the method of claim 8, further, Nazzal et al., discloses viewing the touch screen to confirm movement of the one or more downhole devices (Col. 5, lines 36-45).

13 As to claim 10, the method of claim 8, further, Nazzal et al., discloses moving the one or more downhole devices comprises providing a pressure to operate a controller to move the one or more downhole devices (Col. 5, lines 53-67).

14 As to claim 11, the method of claim 8, further, Nazzal et al., discloses moving the one or more downhole devices comprises providing a first pressure to operate a controller, and providing a second pressure to move the one or more downhole devices (Col. 7, lines 33-49, 66-67; Col. 8, lines 1-67).

15 As to claim 12, Nazzal et al., discloses a method of monitoring operation of a downhole tool (Col. 5, lines 20-52; Col. 6, lines 18-42), the method comprising providing a signal to the downhole tool (Col. 6, lines 32-42), whereby the signal causes the tool to move between an initial and a second position (Col. 8, lines 1-67), and monitoring variables within a fluid power system to confirm the position of the downhole tool (Col.

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5, lines 35-52; Col. 21, lines 20-45), the variables including at least one of pressure, time, total flow, or flow rate (Col. 5, lines 53-67; Col. 6, lines 1-3; Col. 17, lines 5-61).

16 As to claim 13, the method of claim 12, further, Nazzal et al., discloses monitoring the variables comprises viewing a touch screen having information related to the variables (Col. 5, lines 36-52).

17 As to claim 16, the method of claim 12, further, Nazzal et al., discloses the downhole tool comprises one or more fluid control devices (Col. 17, lines 40-45).

18 As to claim 17, the method of claim 12, further, Nazzal et al., discloses interacting with the touch screen to modify the operation of the downhole tool (Col. 21, lines 20-45).

19 As to claim 18, Nazzal et al., discloses a method of operating a plurality of downhole devices in a wellbore (Col. 2, lines 33-52) comprising disposing the plurality of downhole devices in the wellbore (Col. 2, lines 52-60), each of the plurality of downhole devices having at least an open position and a closed position (Col. 11, lines 45-67, Col. 12, lines 1-2; Col. 18, lines 47-55; Col. 20, lines 29-39) and in selective communication with a fluid source (Col. 3, lines 30-41; Col. 5, lines 33-35), positioning a controller in the wellbore (Col. 6, lines 18-38), generating a signal based upon an operator's interaction with a touch screen (Col. 21, lines 20-45), transmitting the signal to the controller (Col.

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6, lines 39-42), whereby the controller places a selected downhole device in fluid communication with the fluid source, and operating the selected downhole device between the open position and the closed position (Col. 18, lines 16-24).

20 As to claim 19, the method of claim 18, further, Nazzal et al., discloses providing a first fluid pressure to move the selected downhole device between the open position and the closed position (Col. 3, lines 30-40; Col. 7, lines 33-49, 66-67; Col. 8, lines 1-67).

21 As to claim 20, the method of claim 18, further, Nazzal et al., discloses the signal comprises a second fluid pressure (Col. 3, lines 34-36).

22 As to claim 21, the method of claim 20, further, Nazzal et al., discloses the first fluid pressure is higher than the second fluid pressure (Col. 3, lines 34-36).

23 As to claim 22, the method of claim 18, further, Nazzal et al., discloses the signal causes rotation of an actuating member of the controller.

24 As to claim 23, the method of claim 22, further, Nazzal et al., discloses a different downhole device is placed in communication with the fluid source as the actuating member is incrementally rotated (Col. 8, lines 40-52).

Rejections - 35 USC § 103

25 The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

26 Claims 7, 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nazzal et al., in view of US publication of Geaghan et al., (20030063073).

27 As to claims 7 and 14, the method of claims 5 and 13, however, Nazzal et al., does not expressly disclose a signal to the one or more devices further comprises selecting an icon representing the one or more devices on the touch screen. In the field of touch panel system and method for distinguishing multiple touch inputs, Geaghan et al., discloses selecting an icon representing the one or more devices on the touch

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screen for electronic display systems as a replacement or supplement to a conventional keyboard and/or a mouse (Page 1, Par. 0002-0003; Page 2, Par. 0024; See figure 8).

It would have been obvious, to one of ordinary skilled in the art, at the time of invention, to modify the touch screen display of sending signal to the one or more devices of Nazzal et al., by incorporating sending signal to the one or more devices by selecting an icon as taught by Geaghan et al., in order to have sending a signal to the one or more devices further comprises selecting an icon representing the one or more devices on the touch screen, because Nazzal et al., discloses a touch screen display for operating one or more downhole devices and Geaghan et al., a touch screen that user may selecting an icon representing different operation or devices.

28 As to claim 15, the method of claim 13, further, Geaghan et al., discloses the touch screen comprises a touch sensor (Page 1, Par. 0007), controller (Page 3, Par. 0034, lines 1-5, 21-23), and software driver (Page 1, Par. 0034, lines 20-21).

Conclusion

29 The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following cited arts are further to show the state of art related to a control apparatus for automated downhole tools.

In the US patent of (6,023,443) Dubinsky et al., discloses a system for drilling boreholes having a downhole subassembly, which contains an acoustic measurement-while-drilling system employing sensors to measure temperature, pressure and other parameters.

In the US patent of (6,048,175) Corlew et al., discloses a multi-well computerized control of fluid pumping for controlling several devices.

In the US patent of (6,368,068) Corlew et al., discloses a computerized control of a pumping system that permits automatic monitoring and subsequent on demand removal of fluids.

In the US patent of (6,431,270) Angle discloses a downhole tools for use in the oilfield and more particularly to downhole tools having a mobility device that can move the tool in the wellbore and an end work device for performing a desired operation at a selected work sites in the wellbore.

In the US publication of (20020120401) Macdonald et al., discloses a method and apparatus for prediction control in drilling dynamics using neural networks using NN simulator as a closed-loop drilling control using drilling dynamics measurements.

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30 Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sisay Yacob whose telephone number is (571) 272-8562. The examiner can normally be reached on Monday through Friday 8:00 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Horabik can be reached on (571) 272-3068. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sisay Yacob

2/24/2006

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